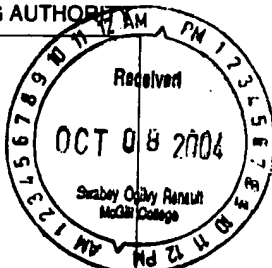


PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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CANADA



PCT

REPLY TO:
WRITTEN OPINION
(PCT Rule 66)

DUE ON JAN 05 2005

Date of mailing
(day/month/year) 05.10.2004

Applicant's or agent's file reference
15818-26PCT AD

REPLY DUE within 3 month(s)
from the above date of mailing

International application No.
PCT/CA 02/01677

International filing date (day/month/year)
05.11.2002

Priority date (day/month/year)
05.11.2002

International Patent Classification (IPC) or both national classification and IPC
A61C13/00

Applicant
CYNOVAD INC. et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☒ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 05.03.2005

Name and mailing address of the international preliminary examining authority:



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JC20 Rec'd PCT/PTO 05 MAY 2005

WRITTEN OPINION

International application No. PCT/CA 02/01677

I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-13 as originally filed

Claims, Numbers

1-41 as originally filed

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation (Form PCT/PEA/405) to restrict or pay additional fees, the applicant has:

- ☐ restricted the claims.
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- ☐ all parts.
- ☒ the parts relating to claims Nos. 1-32, 35-41 .

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-32, 35-41
Inventive step (IS)	Claims	
Industrial applicability (IA)	Claims	

2. Citations and explanations

see separate sheet

Re Item IV

Lack of unity of invention

1. Reference is made to the following document:

D1: EP-A-1252867 (Cicero Dental systems) 30 October 2002

2. The present application does not meet the requirements of Rule 13, PCT, because it relates to four different inventions.

The different inventions are:

- I. Claims 1-32: An method for designing a dental prosthesis
- II. Claims 33: A computer readable memory
- III. Claim 34: A computer data signal
- IV. Claim 35-41: A system for designing a dental prosthesis

There are no technical features common between any of the inventions.

The inventions are furthermore directed to solve different technical problems, namely:

- I. to simplify the computer aided design of a dental prosthesis
- II. to store instructions
- III. to transmit data
- IV. to provide hardware modules for a computer system

A technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT therefore does not exist between the aforementioned four inventions, and the requirement of unity of invention referred to in Rule 13.1 PCT is not fulfilled.

Hence, the different inventions are not so linked as to form a single general inventive concept (Rule 13.1 PCT).

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Claim 1 defines a method of computer-aided design of a dental prosthesis. D1

discloses such a method, namely (cf. abstract, page 2, lines 27-34, page 8. line 54 - page 11, line 13, claims 1-5, 9, 10, figures):

A method for designing a dental prosthesis, the method comprising:
identifying a plurality of components of said dental prosthesis to be designed, each one of said plurality of components having a distinct function;
designing each of said plurality of components separately using virtual tools to produce virtual designs and generating separate data sets, while maintaining a relative reference among said components in a common reference frame; and
producing a dental prosthesis model data set representing said dental prosthesis using all of said separate data sets.

Hence, claim 1 does not meet the requirement of novelty (Article 33(2) PCT).

2. Claim 16, although phrased as an independent claim, defines all features of claim 1 and is therefore dependent on claim 1.

Dependent claims 2-32 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2)(3) PCT), because these claims define well-known method steps practised in producing a dental prosthesis and in computer aided design of a dental prosthesis, which, as far as they are not disclosed in D1 (passages as above), therefore define slight constructional changes in the method of claim 1 which come within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen.

3. The present application further does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 35 is not new in the sense of Article 33(2) PCT. The document D1 (passages as above), discloses:

A system for designing a dental prosthesis, the system comprising:
a data store module for storing separately a plurality of components of said dental prosthesis to be designed, wherein a relative reference is maintained among said plurality of components in a common reference frame,
a designing module for designing each of said plurality of components separately using virtual tools to produce virtual designs of said plurality of components and generating separate data sets, and

an output module for associating each of said separate data sets together and outputting said separate data sets together to a manufacturing device.

Hence, claim 1 does not meet the requirement of novelty (Article 33(2) PCT).

4. Dependent claim 36-41 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, because all features of these claims, as far as they are not disclosed in D1 (passages as above), define slight constructional changes in the system of claim 35, which come within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen.

5. The attention of the applicant is further drawn to the fact that claims 1 and 16 do not meet the requirement of conciseness of Art. 6 PCT.